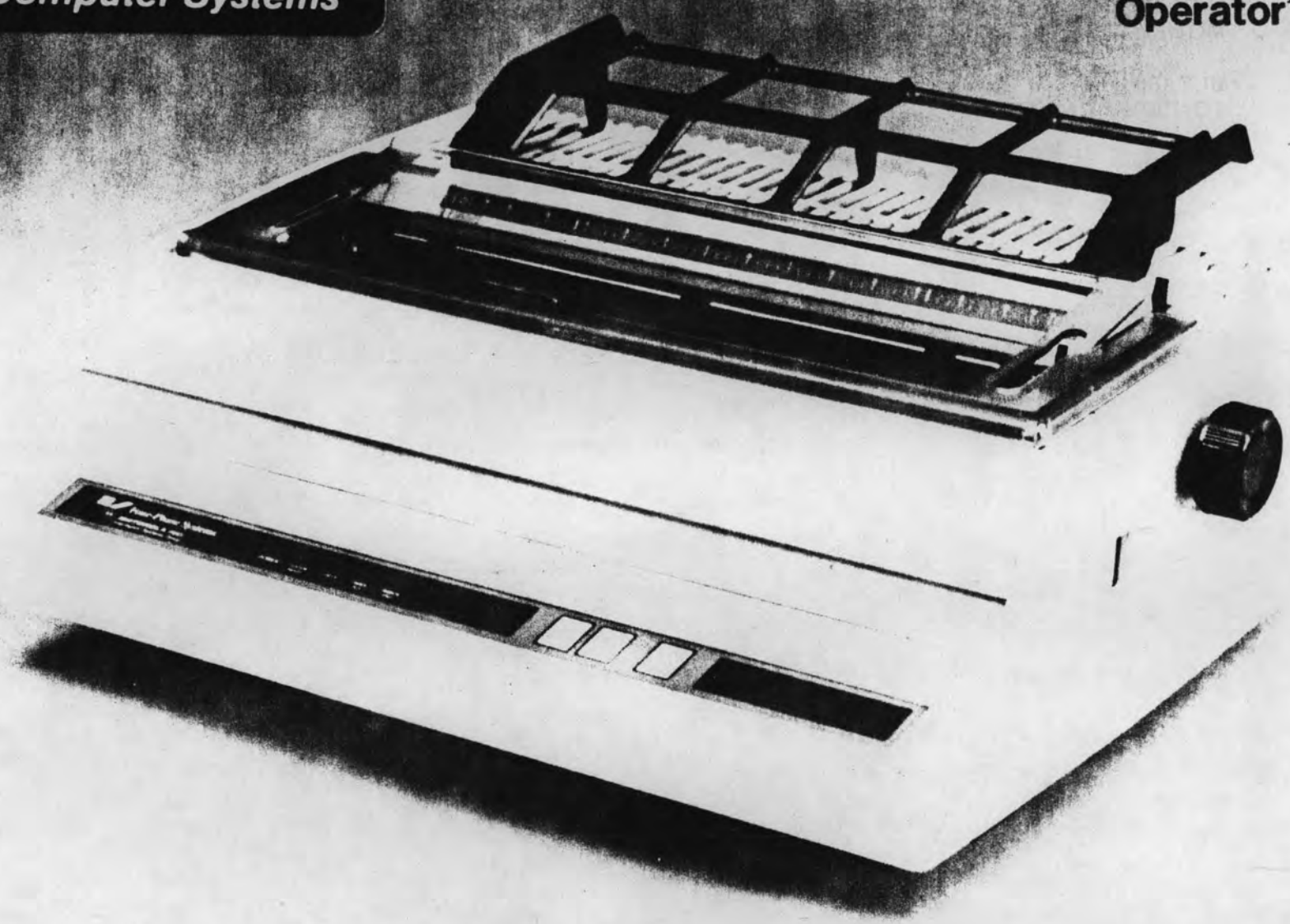
MOTOROLA
Computer Systems

Model 8124
Character Printer
Operator's Guide



THE PURPOSE OF THIS GUIDE IS TO ASSIST YOU IN OPERATING THE MODEL 8124 PRINTER INSTALLED AT YOUR SITE.

PLEASE REVIEW PAGES 2 THROUGH 5 BEFORE YOU ATTEMPT TO PERFORM ANY OPERATOR FUNCTION.

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LOCATION OF PRINTER OPERATION FEATURES

(Refer to the photographs on page 3.)

(1) - ON/OFF SWITCH

(2) - CONTROL PANEL

(3) - ACCESS COVER - Can be removed for changing ribbon cartridge and print wheel.

(4) - SOUND PANEL - Provides sound control when the printer is operating. A tab on the sound panel actuates the cover open switch; the sound panel must be closed to enable machine operation.

(5) - PAPER RACK - Holds the paper up away from the cooling vents in the top cover to permit full flow of cooling air up through the unit. The Paper Rack must be in place at all times except when a forms tractor or cut sheet paper feeder is being used on the unit.

(6) - PAPER RELEASE LEVER - When this lever is pushed to the rear, pressure rollers press the paper against the platen. Thus, turning the platen will cause the paper to move. When the lever is pulled forward, the pressure is released and the paper will slide easily for positioning.

(7) - PLATEN KNOB - Operates similar to the platen knob on a standard typewriter. Used to manually move the paper forward and backward through the printer. By pushing the platen knob to the left as you rotate the platen, you can fine adjust the paper position for proper placement of the printing line.

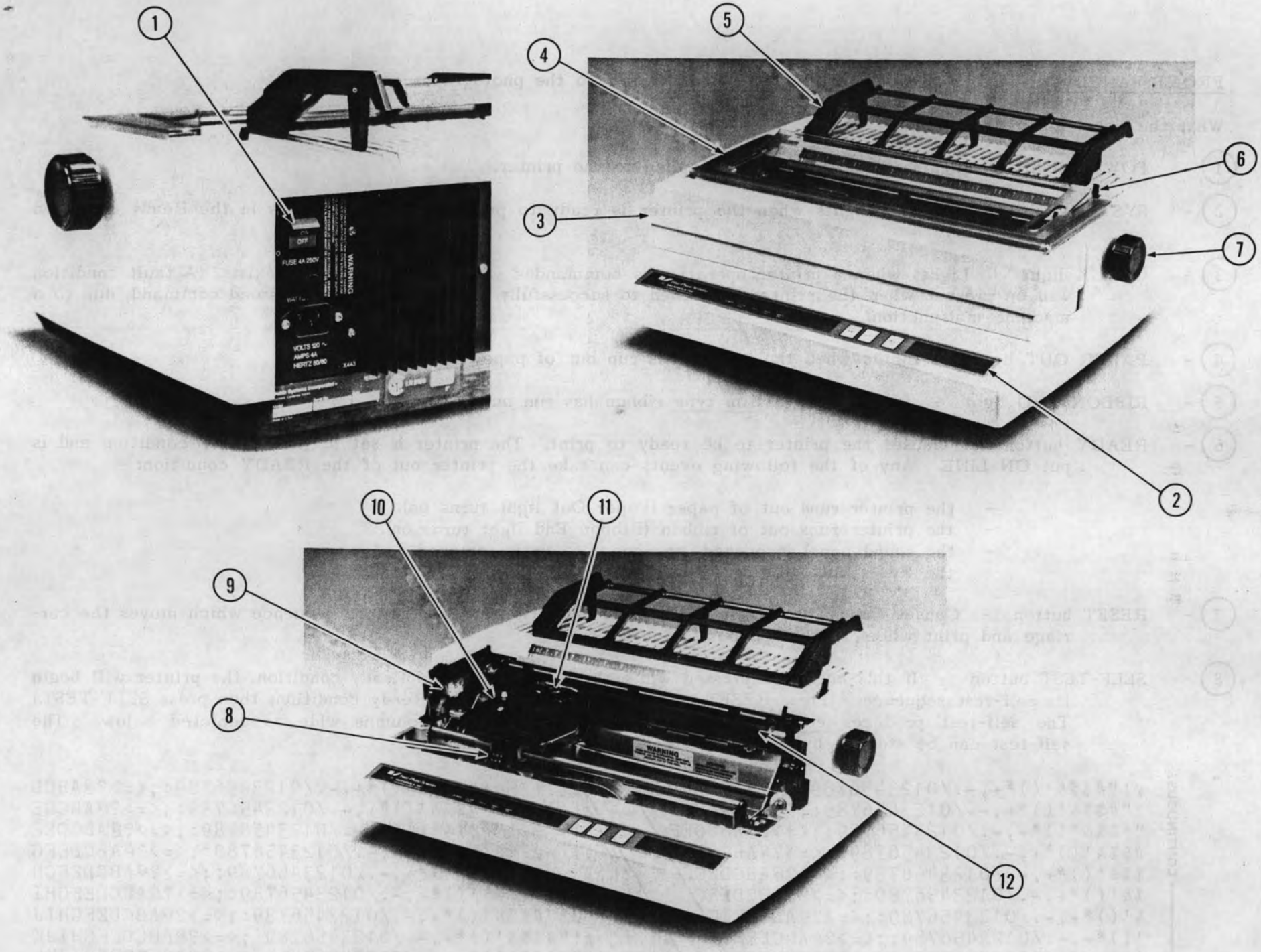
(8) - MULTICOPY LEVER - This two-position lever adjusts the spacing between the carriage/print wheel and platen to compensate for paper thickness. For single sheets or lightweight multiple forms, set the lever to the up position. For thicker forms, set the lever to the down position.

(9) - COVER OPEN SWITCH - This is a safety interlock switch which stops the printer whenever you open the sound panel or remove the access cover. The switch is actuated by a tab on the sound panel.

(10) - RIBBON CARTRIDGE - This is a replaceable ribbon cartridge, available with either fabric or carbon film type ribbon.

(11) - PRINT WHEEL MECHANISM - Includes print wheel, print hammer, and print wheel drive motor. Tilts away from the platen for print wheel changing.

(12) - PLATEN - Similar to the platen used on a standard office typewriter. Includes only the righthand knob.


1
OFF
FUSE 4A 250V
WARNING
VOLTS 120 ~
AMPS 4A
HERTZ 50/60
X443
5
4
6
3
7
2
10
11
9
8
WARNING
12

FRONT PANEL CONTROLS AND INDICATOR LIGHTS (Refer to the photographs on page 5.)

What the lights and buttons mean:

(1) - POWER light - Lights when AC power is applied to the printer.

(2) - SYSTEM READY light - Lights when the printer is ready to print, and the system is in the Ready condition and On Line.

(3) - CHECK light - Lights when a printer operation is commanded while a fault condition exists. A fault condition will be present when the printer has failed to successfully execute a previously issued command, due to a machine malfunction.

(4) - PAPER OUT light - Lights when the printer has run out of paper.

(5) - RIBBON END light - Lights when a film type ribbon has run out.

(6) - READY button - Causes the printer to be ready to print. The printer is set to the READY condition and is put ON LINE. Any of the following events can take the printer out of the READY condition:

- the printer runs out of paper (Paper Out light turns on).
- the printer runs out of ribbon (Ribbon End light turns on).
- the sound panel is opened, or access cover is removed.
- the Reset button is pressed.

(7) - RESET button - Causes the printer to go OFF LINE; and also causes a restore sequence which moves the carriage and print wheel to the leftmost print position.

(8) - SELF-TEST button - If this button is pressed while the printer is not in Ready condition, the printer will begin its self-test sequence. (Press RESET to take the printer out of Ready condition; then press SELF-TEST.) The self-test produces continuous printing of swirl text 132 columns wide as depicted below. The self-test can be stopped by turning off AC power to the printer.

CONTINUOUS

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¢!"#$%&'()*+,-./0123456789:;<=>?@ABCDEFG   /z{¦}~¬¢!"#$%&'()*+,-./0123456789:;<=>?@ABCD
!"#$%&'()*+,-./0123456789:;<=>?@ABCDEFG   /z{¦}~¬¢!"#$%&'()*+,-./0123456789:;<=>?@ABCDE
"#$%&'()*+,-./0123456789:;<=>?@ABCDEFG   /z{¦}~¬¢!"#$%&'()*+,-./0123456789:;<=>?@ABCDEF
#$%&'()*+,-./0123456789:;<=>?@ABCDEFG   /z{¦}~¬¢!"#$%&'()*+,-./0123456789:;<=>?@ABCDEFG
$%&'()*+,-./0123456789:;<=>?@ABCDEFG   /z{¦}~¬¢!"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGH
%&'()*+,-./0123456789:;<=>?@ABCDEFG   /z{¦}~¬¢!"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHI
&'()*+,-./0123456789:;<=>?@ABCDEFG   /z{¦}~¬¢!"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJ
'()*+,-./0123456789:;<=>?@ABCDEFG   /z{¦}~¬¢!"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJK
()*+,-./0123456789:;<=>?@ABCDEFG   /z{¦}~¬¢!"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKL
)*+,-./0123456789:;<=>?@ABCDEFG   /z{¦}~¬¢!"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLM
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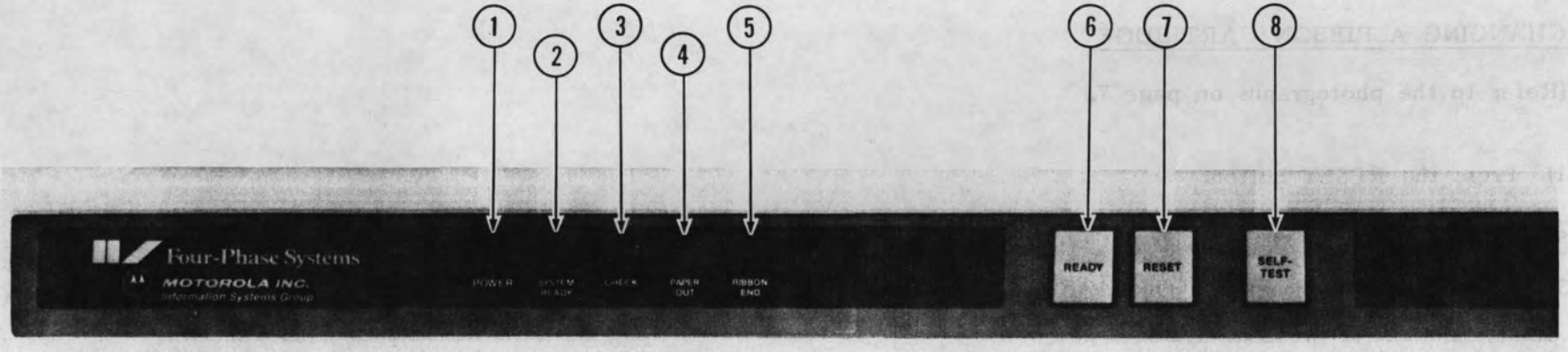


GETTING THE PRINTER READY TO PRINT

1) Set the power ON/OFF switch to the ON position. This should cause the POWER light to turn on.

2) Be sure that a print wheel and ribbon cartridge have been installed on the printer. (See pages 6 and 8 for instructions on installing print wheels and ribbons.)

3) Install paper if needed (see pages 10 - 13 for instructions on loading paper).

4) Press the RESET button, and then the READY button. The POWER light and the SYSTEM READY light will now be lit, and the printer is ready to print.

TURNING OFF THE PRINTER

1) Press the RESET button.

2) Set the power ON/OFF switch to the OFF position.

CHANGING A RIBBON CARTRIDGE

(Refer to the photographs on page 7.)

1) Press the RESET button.

2) Remove the access cover by rocking it up at the front and sliding it forward.

3) To remove the old ribbon cartridge, release the cartridge by pushing down on the two ribbon latches located on left and right sides of the ribbon deck. Lift the old ribbon cartridge out of the printer.

4) On the replacement ribbon cartridge, remove any slack in the exposed portion of ribbon by turning counterclockwise on the small knob on top of the cartridge.

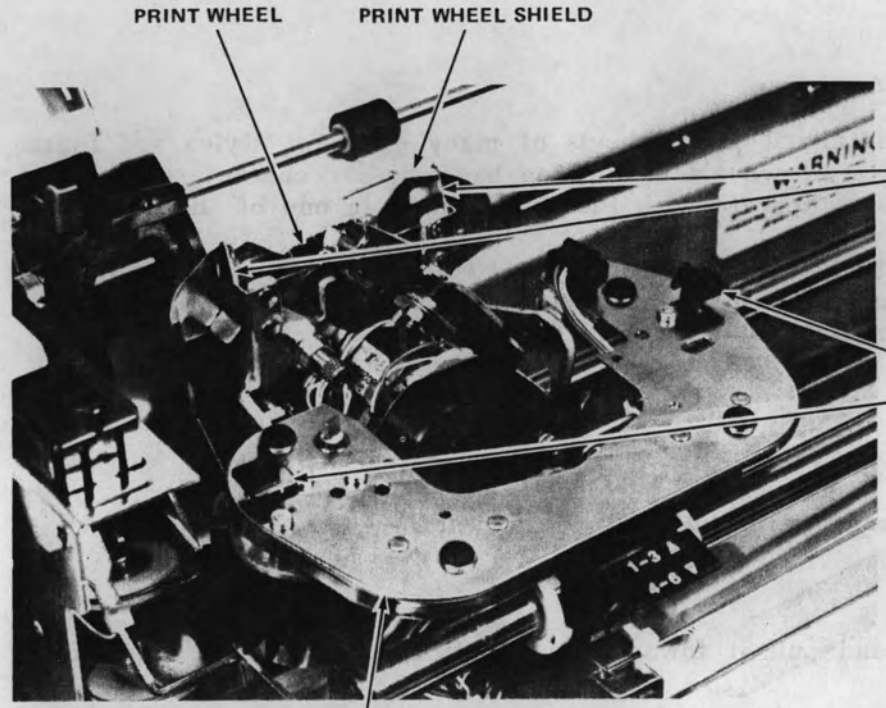
5) Lower the ribbon cartridge into place on the ribbon deck, with the exposed portion of ribbon positioned behind the ribbon guideposts and behind the print wheel.

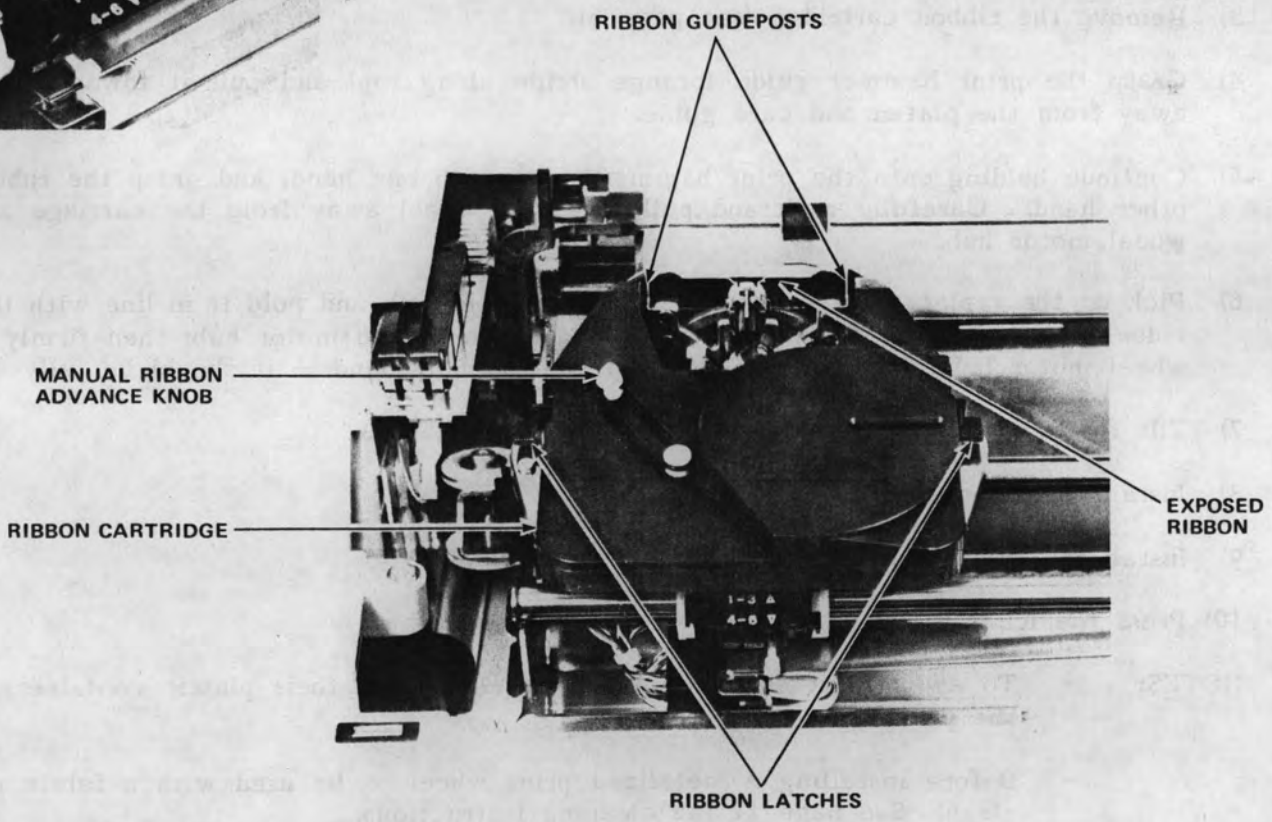
6) Push the ribbon cartridge down firmly until both latches have snapped into position, locking the cartridge to the ribbon deck.

7) Turn the manual ribbon advance knob a turn or two to ensure that the ribbon is tight, straight and ready to operate.

8) Reinstall the access cover, and close the sound panel.

9) Press the READY button.


PRINT WHEEL
PRINT WHEEL SHIELD
RIBBON GUIDEPOSTS
RIBBON LATCHES
RIBBON DECK


RIBBON GUIDEPOSTS
MANUAL RIBBON ADVANCE KNOB
RIBBON CARTRIDGE
EXPOSED RIBBON
RIBBON LATCHES

CHANGING A PRINT WHEEL

The Model 8124 printer can operate with both plastic and metalized print wheels of many different styles and fonts. These print wheels comprise several groups where all of the print wheels in a group have similar character sets. By means of jumper plugs inside the printer, the printer is set up to operate with the print wheels in one of these groups.

Your printer was preset at the factory to operate with a Diablo 96-character Pica 10 plastic print wheel. If your printing application requires use of a different print wheel, arrangements can be made to have a Field Engineer make the necessary jumper changes inside the printer. These jumpers are not accessible to the operator.

(Refer to the photographs on page 9.)

1) Press the RESET button.

2) Remove the access cover by rocking the front of the cover upward and sliding it forward.

3) Remove the ribbon cartridge (see page 6).

4) Grasp the print hammer guide (orange stripe along top) and pull it toward you to tilt the print wheel mechanism away from the platen and card guide.

5) Continue holding onto the print hammer guide with one hand, and grasp the rubber hub of the print wheel with your other hand. Carefully rock and pull the print wheel away from the carriage assembly until it slides off the print wheel motor hub.

6) Pick up the replacement print wheel by its rubber hub and hold it in line with the print wheel motor hub. Align the index hole in the print wheel with the index tab on the motor hub; then firmly push the print wheel onto the print wheel motor hub. Finally, rotate the print wheel by hand -- it should be fully seated and should not wobble.

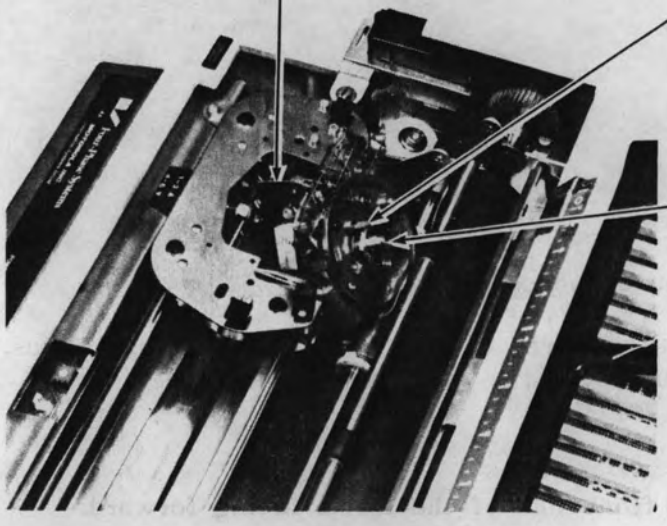
7) Tilt the print wheel mechanism back toward the platen.

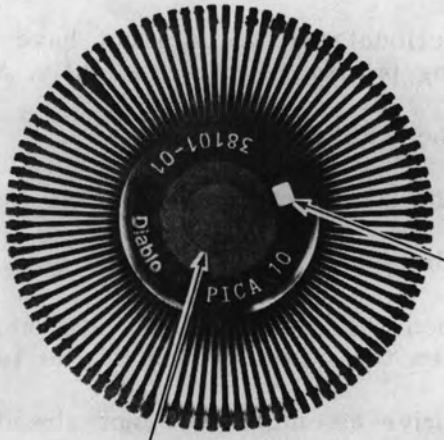
8) Install the ribbon cartridge.

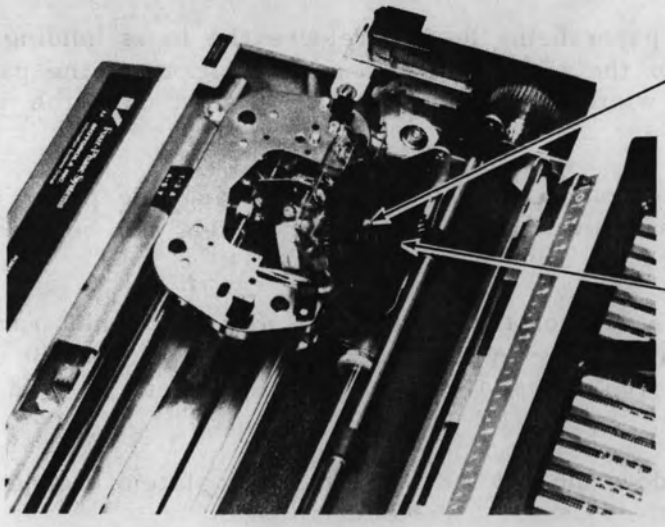
9) Install the access cover, and close the sound panel.

10) Press the READY button.

NOTES:
- To avoid print wheel damage, store them in their plastic containers whenever they are not installed on the printer.
- Before installing a metalized print wheel to be used with a fabric ribbon, make sure the print wheel is clean. See page 17 for cleaning instructions.


HAMMER GUIDE
INDEX TAB
PRINT WHEEL MOTOR HUB


38107-01
Diablo
PICA 10
INDEX HOLE
RUBBER HUB


INDEX TAB
PRINT WHEEL RUBBER HUB

LOADING PAPER

There are two different procedures for loading paper:

A. Loading paper with a tractor feed assembly installed.
B. Loading paper without a tractor feed assembly installed.

A. Loading Paper With A Tractor Feed Assembly Installed

(Refer to the photographs on page 11.)

(NOTE: Instructions for installing a tractor feed assembly are given on pages 14 and 15.)

The unidirectional tractor does not have the reverse drive assemblies required on the bidirectional tractor; thus, the paper loading procedure differs slightly, as noted in the procedure below.

1) Press the RESET button.

2) Place the supply of paper squarely behind the printer, with the front side of the forms facing forward.

3) Swing the sound panel open and pull the paper bail forward on the printer.

4) Snap open the spring-loaded gate on each of the two forward drive assemblies. On a bidirectional tractor, also snap open the gate on each of the two reverse drive assemblies.

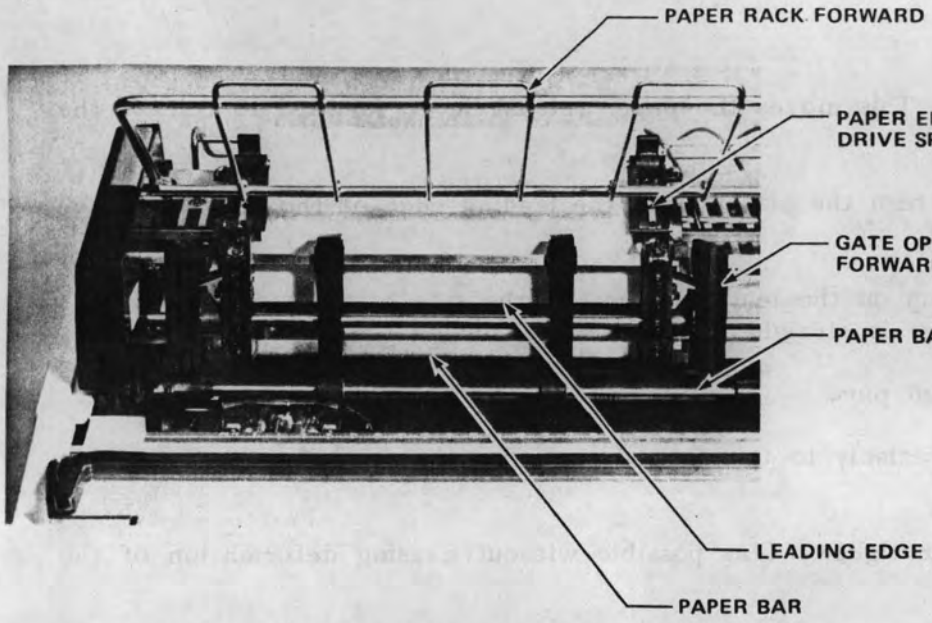
5) If the drive assemblies are not already spaced properly for the paper being loaded, release the locks holding the two tractor drive assemblies. Adjust the left drive assembly to the approximate desired position of the paper; then adjust the right drive assembly to the approximate paper width. Leave the locks loosened until the drive assembly positions are precisely set later in this procedure.

6) Swing the upper paper rack forward on the tractor. This gives convenient access for engaging the paper onto the reverse drive sprockets, and also moves the pressure release lever rearward so the platen will be able to grip the leading edge of the paper and pull it around to the forward drive assemblies.

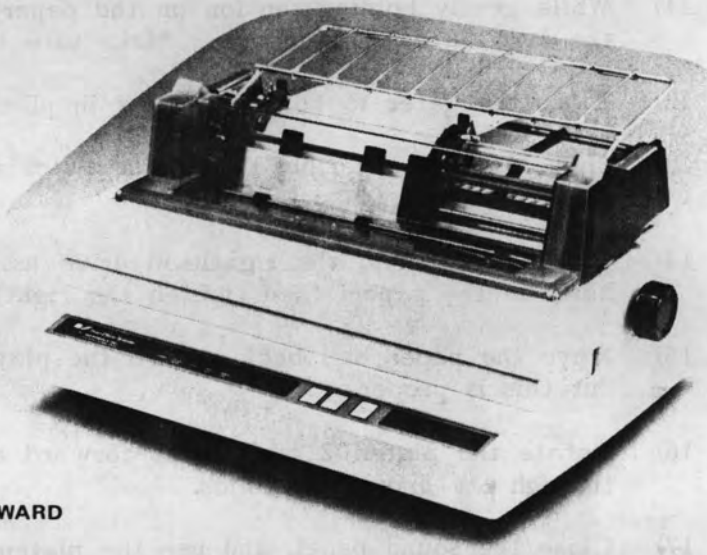
7) Bring the leading edge of the continuous form paper up over the rear of the printer. On a bidirectional tractor, hook the pin feed holes along each side of the paper onto the feed pins on the reverse drive sprockets. Be sure the paper is aligned straight on the sprockets, and then close the gates over the drive sprockets to hold the paper in place on the feed pins.

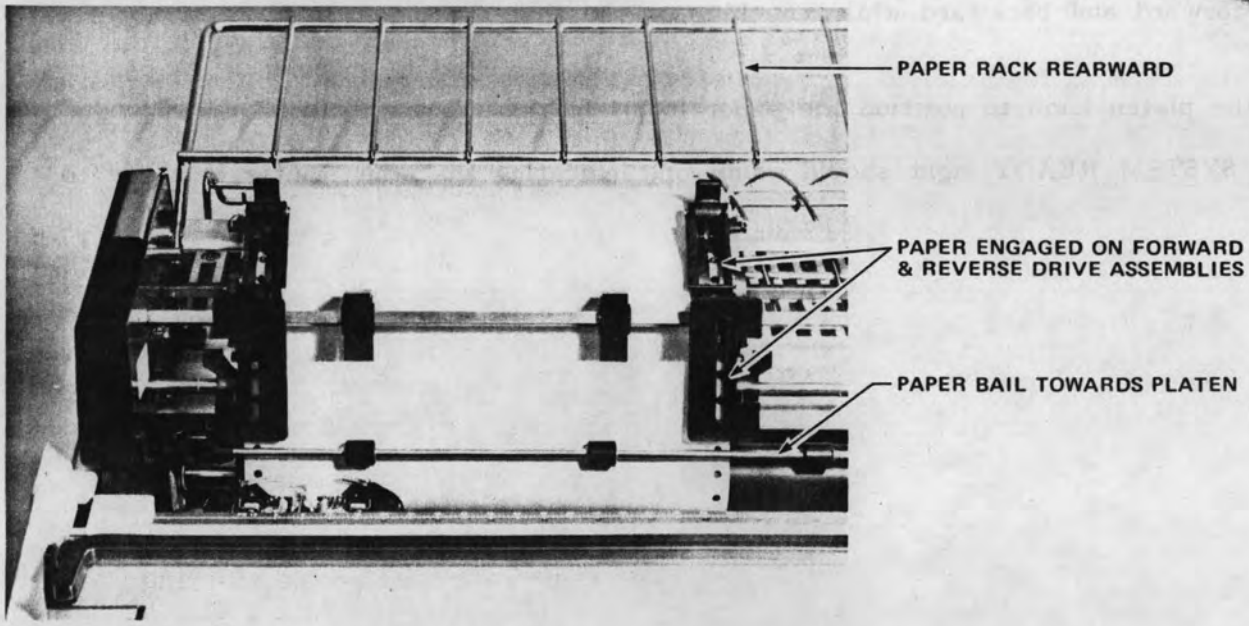
8) Slowly rotate the platen to feed the leading edge of the paper down behind the paper bar and platen, around and up in front of the platen.

(continued)



FIRST STEPS FOR LOADING PAPER ON THE FORMS TRACTOR





FINAL STEPS IN LOADING PAPER ON THE FORMS TRACTOR

9) Swing the upper paper rack rearward on the tractor. This moves the paper release lever forward to release the grip of the platen on the paper.

10) Grasp the leading edge of the paper and continue to turn the platen until the leading edge of the paper is above the forward drive assemblies on the tractor.

11) While gently holding tension on the paper by pulling up on the leading edge, fit the side holes in the paper onto the forward drive feed pins. Make sure that the paper is straight and not misaligned on the feed pins.

12) Close the gates to hold the paper in place on the feed pins.

13) Slide the left and right drive assemblies and paper precisely to the desired paper position, and then lock the left drive assembly in position.

14) Position and hold the righthand drive assembly as far rightward as possible without causing deformation of the holes in the paper; then tighten the righthand lock.

15) Move the paper bail back toward the platen. (The bail will be held away from the platen slightly by the tractor but this is proper.)

16) Rotate the platen 2 or 3 turns forward and backward while checking to see that the paper is feeding properly through the drive assemblies.

17) Close the sound panel, and use the platen knob to position the paper forms to the starting position.

18) Press the READY button. The SYSTEM READY light should come on, indicating that the printer is ready to print.

B. Loading Paper Without A Tractor Feed Assembly (refer to the photograph below.)

(NOTE: Instructions for removing the tractor feed assembly are given on page 14.)

1) Press the RESET button.

2) Place the supply of paper squarely behind the printer, with the front side of the forms facing the printer.

3) From in front of the printer, swing the sound panel open and pull the paper bail forward.

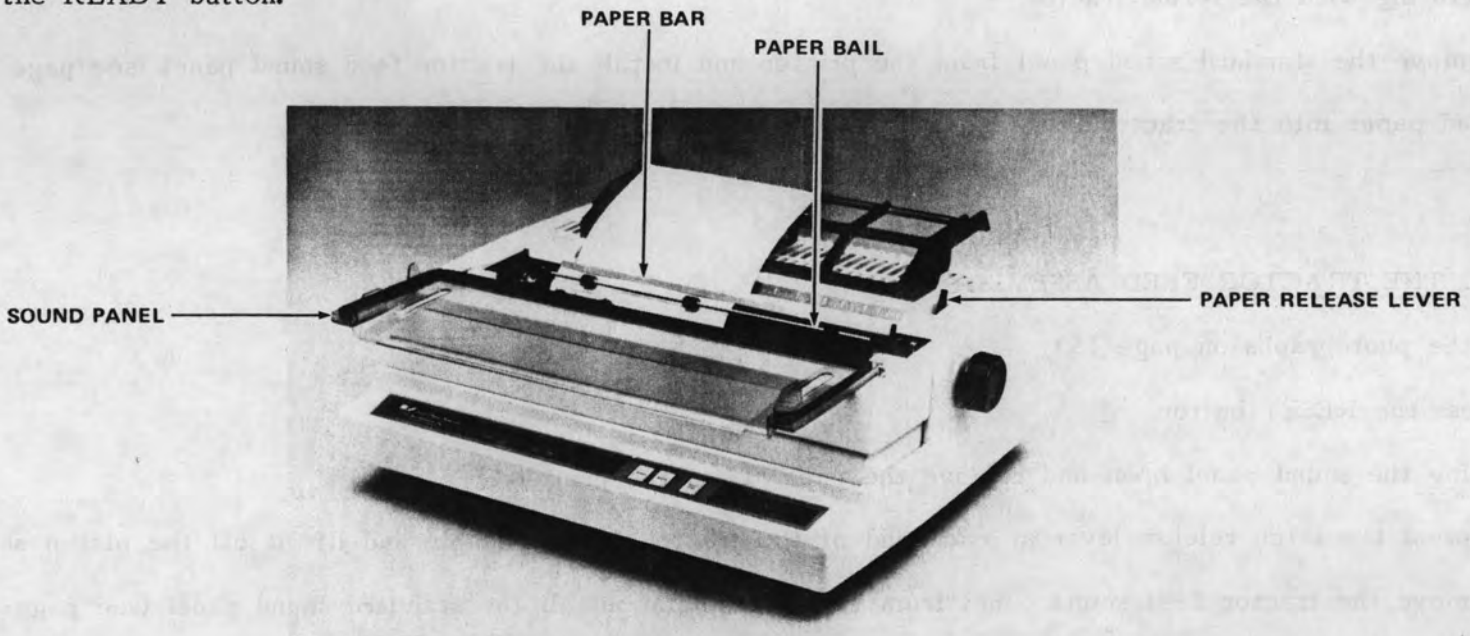
4) Pull the paper release lever forward.

5) Feed the leading edge of the paper over the paper rack, and then down behind the paper bar. Push the paper down so the leading edge slides under and around the platen. Pull a sheet length of paper up in front of the platen.

6) Align and position the paper as needed; then move the paper release lever to the rear.

7) Rotate the platen to adjust the paper so that the printing line is about one-half inch below the horizontal forms perforation.

8) Press the READY button.



INSTALLING THE TRACTOR FEED ASSEMBLY

(Refer to the photographs on page 15.)

1) Press the RESET button; then remove the paper from the printer.

2) Swing the sound panel on the printer forward to its open position.

3) Pull the paper release lever and paper bail forward toward the front of the printer.

4) Holding the tractor feed assembly at both ends, depress the latch release lever at each end of the tractor and lower the tractor onto the platen shaft. As the tractor is being lowered, guide the paper release actuator fork on the tractor over the paper release lever on the printer.

5) Release the latch levers to clamp the tractor assembly to the platen shaft. Check to see that both ends of the tractor are firmly latched.

6) Swing the paper support rack on the tractor to its forward position, and check that the paper release lever on the printer snaps to its rearward position. Swing the paper support rack back to its normal position and check that the paper release lever is pulled to its forward position. This releases the paper tension, as necessary when operating with the forms tractor.

7) Remove the standard sound panel from the printer and install the tractor feed sound panel (see page 16).

8) Load paper into the tractor feed assembly as described on pages 10, 11 and 12.

REMOVING THE TRACTOR FEED ASSEMBLY

(Refer to the photographs on page 15.)

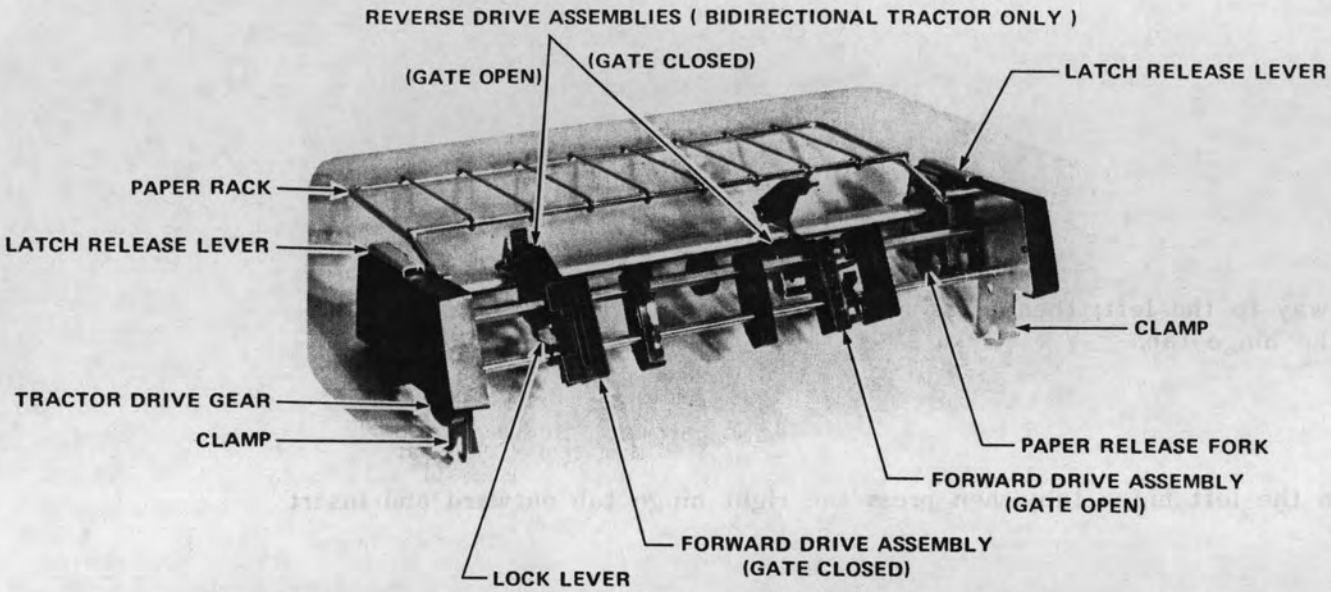
1) Press the RESET button.

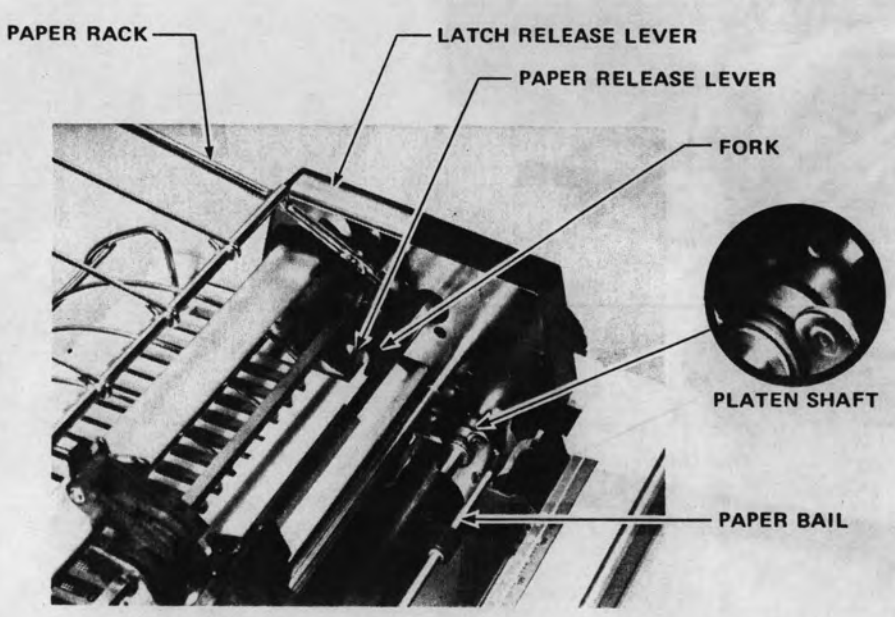
2) Swing the sound panel open and remove the paper from the printer.

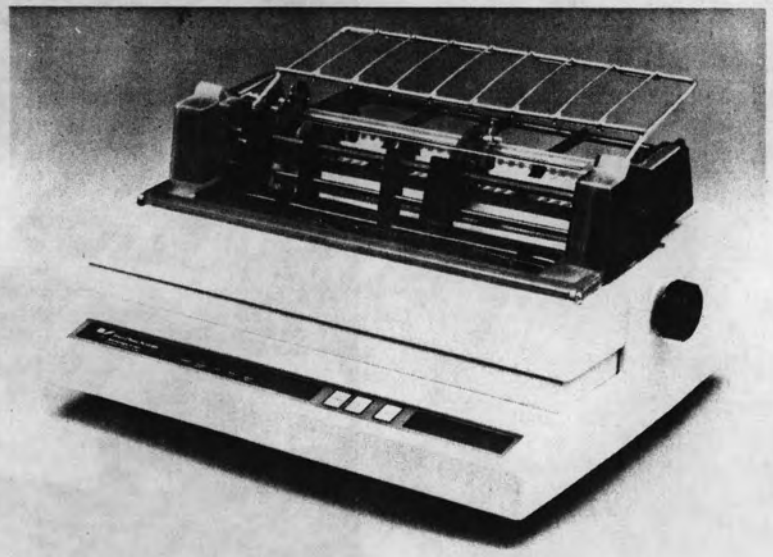
3) Depress the latch release lever at each end of the tractor feed assembly and lift it off the platen shaft.

4) Remove the tractor feed sound panel from the printer and install the standard sound panel (see page 16).

5) Load paper into the printer as shown on page 13.


REVERSE DRIVE ASSEMBLIES (BIDIRECTIONAL TRACTOR ONLY)
(GATE OPEN)
(GATE CLOSED)
LATCH RELEASE LEVER
PAPER RACK
LATCH RELEASE LEVER
CLAMP
TRACTOR DRIVE GEAR
CLAMP
PAPER RELEASE FORK
FORWARD DRIVE ASSEMBLY
(GATE OPEN)
FORWARD DRIVE ASSEMBLY
(GATE CLOSED)
LOCK LEVER


PAPER RACK
LATCH RELEASE LEVER
PAPER RELEASE LEVER
FORK
PLATEN SHAFT
PAPER BAIL



CHANGING THE SOUND PANEL

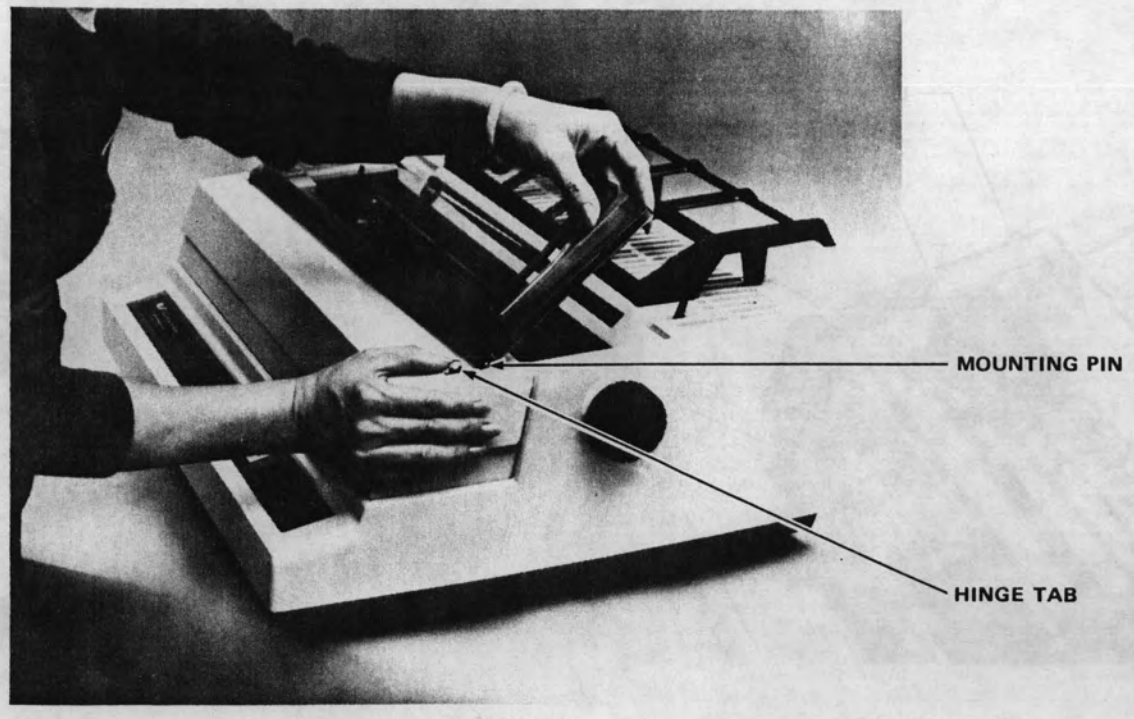
(Refer to the photograph below.)

To remove the old sound panel:

Slide the sound panel all the way to the left; then press the right hinge tab outward and remove the right mounting pin from the hinge tab.

To install the new sound panel:

Insert the left mounting pin in the left hinge tab; then press the right hinge tab outward and insert the right mounting pin.



CLEANING THE PRINTER

Cleaning Print Wheels:

Print wheels used with carbon film ribbons seldom need cleaning. Print wheels used with cloth ribbons will require periodic cleaning.

1) Remove the print wheel from the printer.
2) Clean the print wheel with MEK* or acetone* and a soft brush or lint-free tissue.
   - DO NOT soak print wheels in the cleaning solutions.
   - DO NOT get solvent on the rubber hub or the damper ring on metalized wheels.
   - BE CAREFUL to not bend the "petals" of the print wheel.

   * MEK (Methyl-Ethyl-Ketone) and acetone are available in most large hardware stores.

   ****
   WARNING:
   If it is necessary to use MEK, proper precautions should be observed during its use.
   It is recommended that it be taken out of the operating area into a safe, well ventilated area for cleaning.
   ****

   Note: As a substitute for MEK or acetone you can also use either "Formula 409" or "Fantastik" household cleaning solutions. After cleaning the print wheels with either 409 or Fantastik, dry them thoroughly with a tissue. This is especially important with the plastic print wheels, to prevent absorption of any water from the cleaning solution into the plastic of the print wheel.

3) After using "Formula 409" or "Fantastik", rinse the print wheel with clear water.
4) Blot dry the print wheel thoroughly with a soft cloth or tissue; then reinstall it in the printer.

Cleaning The Print Hammer:

If the print wheel is allowed to accumulate ink when using a fabric ribbon, the print hammer may also require cleaning.

- Remove the ribbon cartridge, print wheel, and print wheel shield.
- Locate the movable print hammer inside its guide (see photo on page 9).
- Push the print hammer out of the guide to expose as much of the hammer as possible.
- Use 91% isopropyl alcohol and a brush or tissue to remove any accumulated ink or other substances.
- Wipe the hammer dry.

MODEL 8124 PRINTER SUPPLIES

Print wheels and ribbons for your Model 8124 printer can be obtained directly from:

IV SUPPLIES
P.O. Box 70900
Sunnyvale, California 94086

By ordering from IV SUPPLIES you are assured:

- HIGH QUALITY - The same high quality expected of our systems is reflected in our personal computer and supplies products.

- CONVENIENCE - You can order directly by mail to IV SUPPLIES at the address given above. If you are presently a Four-Phase customer in good standing, you are already qualified to open an account with IV SUPPLIES. You order directly and are billed directly.

- CORRECT PART - Our supplies are referenced to the Four-Phase products you use.

- PRICE - Our supplies are offered at competitive prices consistent with high quality. You can take advantage of significant discounts with quantity purchases.

- FAST SHIPMENT - We are committed to giving you fast, dependable service. All supply items are normally stocked, and are shipped within 3 working days after receipt of your order.

- SUPPORT - A direct phone line is available for answers to technical questions, product compatibility, order status, product needs, or any related problems. You can call us at (408) 252-8114. Our phones are in service from 7:30 a.m. - 11:30 a.m. Pacific time. At all other times, an answering service is available so we can return your call at a time convenient for you.

A catalog of supplies for the Model 8124 printer is listed on the next page. To order, make a copy of the order form on the back of the next page; fill out the form, and send it to IV SUPPLIES at the address given.

RIBBON CARTRIDGES

Catalog No.	Description
PS120	Fabric Ribbon, Black
PS130	Carbon Film Ribbon, Multistrike High-Capacity, Black

Print Wheels

Catalog No.	Description	Type Style Sample
96-character plastic print wheels		
PW8101	Pica 10	ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz 0123456789 ¢!"#$%&'()*+,-./:;<=>?@[\]^_`{¦}~¬
PW8102	Elite 12	ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz 0123456789 ¢!"#$%&'()*+,-./:;<=>?@[\]^_`{¦}~¬
PW8105	Prestige Elite Legal 12A	ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz 0123456789 ¢!"#$%&°()*+,-./:;§=†?@[®]©_'¼_¶™½
PW8107	Courier 72	ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz 0123456789 ¢!"#$%&'()*+,-./:;<=>?@[\]^_`{|}~¬
PW8146	OCR-B 10	ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz 0123456789 £!"#$%&'()*+,-./:;<=>?@[\]^_`{|}~¤
96-character metal print wheels		
PW1900	Titan 10	ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz 0123456789 ¢!"#$%&'()*+,-./:;<=>?@[\]^_`{|}~´
PW1903	Elite 12	ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz 0123456789 ¢!"#$%&'()*+,-./:;<=>?@[\]^_`{|}~´

FOUR-PHASE SYSTEMS, INC.

IV SUPPLIES

Please send order to:

IV SUPPLIES
P.O. Box 70900
Sunnyvale, CA 94086

Date _____ Customer No. _____ (if known)

Your P.O. Number _____

Bill To:

Name _____

Title _____

Company _____

Address _____

City _____ State _____ Zip _____

Ship To: (if different than address at left)

Name _____

Title _____

Company _____

Address _____

City _____ State _____ Zip _____

Catalog No.	Description	Quantity	Unit Price (ea., doz. etc.)	Total Amount	O.I.C.	Maint. Contract

Total Order

Shipment Method: F.O.B Shipping Point UPS ☐ UPS Blue Label ☐ Federal Express ☐ Insurance Requested ☐
IV Supplies Air Carrier ☐ IV Supplies Surface Carrier ☐

Payment Terms: Net 30 days from date of invoice. Shipping and installation charge will be added to your invoice. Also applicable sales taxes and zone charges (see Zone Installation and Maintenance Price Schedule) will be added. If requested optional installation charges (see Optional Installation Charges Schedule) and maintenance contract charge (see Maintenance Pricing Schedule) will be added to your invoice. Tax Exemption Number (if applicable) _____

Personal Computer Maintenance Coverage: Please check under Maintenance Contract every item maintenance coverage is requested for. Also check below type and length of contract requested.

	1 Year	2 Year
Walk In/Mail In	☐	☐
On-Site	☐	☐

Credit: If you are a Four-Phase customer in good standing, you are already qualified to open an account with IV SUPPLIES. If you are a new customer, please provide your company's D & B number to expedite your order through our Credit Department.

This order is subject to IV SUPPLIES' Terms and Conditions in effect at the time of order.

Person Ordering _____ Title _____

Phone No. ( ) _____ Ext. _____ Signature _____

FCC NOTICE

Warning: This equipment generates, uses and can radiate radio frequency energy and, if not installed in accordance with the instructions manual, may cause interference to radio communications.

This equipment has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of the FCC Rules, which are designed to provide reasonable protection against such interference when this device is operated in a commercial environment.

Operation of this equipment in a residential area is likely to cause interference, in which case the user, at his own expense, will be required to take whatever measures are necessary to correct the interference. The user should consult the dealer or an experienced radio/television technician for help. In addition, an FCC booklet, "How to Identify and Resolve Radio-TV Interference Problems", Stock No. 004-000-00345-4, is available from the U.S. Government Printing Office, Washington, D.C., 20402.

In equipment labeled Class A compliant a shielded and grounded I/O cable is necessary to achieve compliance with the FCC Rules regarding radio emissions from computers. Please consult your dealer or authorized sales representative for further details regarding such a cable.

90300-01 (4/83)

10700 North De Anza Blvd • Cupertino, California 95014

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